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Your attention is invited

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**NEWS
OF THE
HYDRAULICS
DIVISION
OF
ASCE**



JOURNAL OF THE HYDRAULICS DIVISION

PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

Journal of the
HYDRAULICS DIVISION
Proceedings of the American Society of Civil Engineers

NEWS

September, 1961

THE PURPOSE OF THE HYDRAULICS DIVISION

The advancement and dissemination of scientific and engineering knowledge in all branches of hydraulics, hydrology, hydraulic engineering and water resources. In particular this shall embrace meteorology and hydrology and the sciences dealing with the occurrence of water in the atmosphere, on the earth surface and in the ground, fluid mechanics for the understanding of flow phenomena, applied hydraulics for the design and planning of hydraulic structures and of comprehensive systems, and those social, economic and administrative aspects basic to the conservation and utilization of water as an essential natural resource."

COMMITTEES

Executive Committee

The ASCE Committee on Division Activities has announced that Dr. Arno T. Lenz, Chairman, Civil Engineering Department, University of Wisconsin, will be the new member of the Executive Committee of the Hydraulics Division effective October 18, 1961, for a term running until October 1965. He will succeed Dr. A. T. Ippen, whose term expires this October. Dr. Lenz has been the Secretary of the Executive Committee this past year.

Committee on Water Resources Planning

This committee held a meeting August 14 and 15, 1961, in Chicago. Their discussion included comments on the first draft of the committee paper "Basic Considerations in Water Resources Planning," consideration of the possibility of developing a bibliography on water resources planning, firming up the program for a half-day session at the ASCE Houston Convention, preliminary consideration of future programs, and the Committee work program for the next year.

Task Force on Flood Plain Regulation

The Task Force held a meeting on May 10, 1961, just prior to attending the Chicago Flood Plain Regulation Conference. A draft of part of the Task Force

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report was discussed and assignments were made for continuing work to complete the report by the end of the year.

Chicago Flood Plain Regulation Conference

A conference to consider the means by which flood plain information could be made available to local communities for flood plain regulation purposes was held at the University of Chicago on May 11-12, 1961. The conference was sponsored by the University of Chicago, American Society of Civil Engineers, American Society of Planning Officials, Council of State Governments on behalf of the Interstate Conference on Water Problems, and by the Tennessee Valley Authority. James E. Goddard, Chairman, ASCE Task Force on Flood Plain Regulations, was active in planning for the conference and in assisting the Conference Chairman, Dr. Gilbert F. White, Professor of Geography, University of Chicago.

The conference was attended by Robert E. Cyphers, Frank Kochis and William S. Wise, members of the Task Force on Flood Plain Regulations, in addition to Mr. Goddard. The Committee on Flood Control was represented by I. Perrey.

The conference was an invitational affair, to which the leading and most active participants in flood plain regulation and floodway encroachment matters in the nation were invited. Participating were representatives from the Corps of Engineers, U. S. Geological Survey, Weather Bureau, Soil Conservation Service, TVA, Council of State Governments, nine states, several planners, two universities, and a few miscellaneous persons. In all, 37 persons were in attendance.

The Corps of Engineers Manual on Flood Plain Information Studies (E-1165-2-111), for the guidance of Corps district offices in carrying out the flood plain information studies authorized by Section 206 of the Flood Control Act of 1960, had been released shortly before the conference and copies were sent to the participants. Consequently, the manual became a principal topic for discussion.

From the beginning it was planned that the conference would be kept simple and that there would be no prepared papers or speeches. The main purpose of the meeting was to provide for an exchange of views by those participating.

The principal accomplishments of the conference were:

- a. It provided for an exchange of experience in flood plain regulation problems.
- b. It provided an opportunity for an exchange of ideas and interpretations regarding the manual on Flood Plain Information Studies between the Corps of Engineers and the states and other federal agencies.
- c. It identified the need for more vigorous action on the part of states in acting as coordinating agencies between local levels of government and federal agencies. States must equip themselves to meet the responsibilities in guiding and coordinating activity in these matters.
- d. It confirmed that the field of community planning is not a responsibility of federal agencies. It pointed out that the American Institute of Planners should take a lead in informing planners of the informational and advisory services regarding flood plain matters that are available through state and federal agencies.

A New Concept for Technical Programs in ASCE

Mr. William H. Wisely, Executive Secretary, prepared a statement on June 14, 1961, based on his recommendations made to the May 5, 1961 meeting.

The ASCE Committee on Technical Procedure, which analyzes some of the shortcomings of the Society's present technical meeting programs and presents a proposed plan to remedy these shortcomings. The Committee on Technical Procedure approved of Mr. Wisely's suggestions and has recommended that the ASCE Board of Direction give favorable attention to revising practice gradually but as rapidly as practicable, with the view to holding a year one annual convention, and several functional conferences. Since this is a matter of concern to the Hydraulics Division as well as to all members of ASCE, the following extracts from Mr. Wisely's statement are presented here for your information. Your Executive Committee will appreciate comments you may have in this regard.

"A NEW CONCEPT FOR TECHNICAL PROGRAMS IN ASCE"

When an engineering society of 47,000 members attracts only 5 to 10 percent of them to its national technical meetings each year there is obviously cause for concern. This condition has prevailed in ASCE for many years.

PRESENT TECHNICAL MEETINGS

Conventions

Eleven of the fourteen technical divisions of the Society are free now to arrange sessions in any convention program. This results in a haphazard assembly of 55 sessions offered by 10 to 14 of the divisions in concurrent batches of as many as six sessions in any morning or afternoon period.

Sessions arranged by any division are rarely strong enough to draw a national audience.

The program in any technical division specialty is rarely strong enough to justify granting of time and expenses by employers of members.

Session attendance is small, usually ranging from 20 to 100. This discourages top flight authors and papers. Society publications subsequently suffer.

Conditions of practice papers are of interest and concern to all members wherever located. Their impact is realized in full only when there is a national audience representing a cross-section of all segments of membership.

The demand for meeting rooms to accommodate concurrent technical sessions greatly complicates convention management and limits the selection of convention headquarters.

Technical Conferences

Because the conventions have not given adequate opportunity for exchange of knowledge and experience, the more aggressive technical divisions have held periodic or occasional conferences of their own. Such conferences are considered to be the most productive technical meetings of the Society at this time.

Managed to date, however, these conferences have also been more regional than national in attendance.

In each of the years 1959 and 1960 there were six technical conferences drawing an aggregate registration of 1,300 members.

Joint Conferences with Other Societies

ASCE has always been a willing participant in joint programs with other engineering societies.

The joint conferences (American Power Conference, EJC Nuclear Congress, Engineering Management Conference) do not, however, attract a significant segment of the membership.

PROPOSED PLAN OF MEETINGS

No doubt there is more than one possible solution to the problem as outlined above. The plan suggested here is believed to be flexible and adaptable to the development of programs with a definite and specific purpose.

The components of the plan are:

1. At least four annual basic conferences centered upon major areas of civil engineering practice.
2. Annual or periodic division or specialty conferences on timely subjects.
3. One Annual Convention of broad civil engineering interest.
4. Joint technical conferences with other societies.

Basic Annual Technical Conferences

As presently visualized these would be: (a) the Annual ASCE Environmental Engineering Conference, (b) the Annual ASCE Structural Engineering Conference, (c) the Annual ASCE Transportation Engineering Conference, (d) the Annual ASCE Resources Engineering Conference. Sponsorship and participation in them would include only those technical divisions having a direct interest in the scope of the conference.

Locale of the basic conferences would be rotated throughout the nation. Meetings of the Board of Direction could also be rotated among them as desired.

Specialty Conferences

There will always be a need for technical conferences pointed to specific timely problems and subjects. These should be sponsored by one or more technical divisions, on the basis of direct interest, and they should be presented as major national meetings, supplementing the basic annual conferences.

Annual Convention

The Annual Convention would be planned for all members of the Society regardless of technical specialty. There would be no sessions of technical papers arranged by the divisions. Duration would be 2-1/2 days.

Features of the Annual Convention would be:

1. Annual Business Meeting.
2. Annual Honors and Awards Convocation.
3. Addresses by national figures from government, industry and other professions, on topics of timely public concern.
4. Conditions of Practice programs, on professional subjects in all areas.
5. Special addresses by Society officers (President, President-elect).

6. Special lectures by national and international authorities.
7. Workshop sessions for Committee on Conditions of Practice and Committee on Technical Procedure.

It will be noted that this type of program possesses extraordinary public relations possibilities.

at Conferences with Other Societies

Opportunity for joint programs with other societies should be greatly enhanced in the proposed basic annual conferences.

Increased emphasis on the division and specialty conferences as national meetings would make these more attractive to cognate and related societies for joint participation.

CONCLUSIONS

It is believed that the proposed new combination of technical programs will markedly enhance the overall quality and productiveness of the meetings of publications of the Society. Among the foremost benefits and advantages are the following:

1. All meetings would have specific direction and purpose, offering vigorous programs having national and international appeal and providing maximum advantage in personal contacts.
2. Better audiences would attract the best available authors and papers, an ultimate secondary benefit to all Society publications.
3. Strong, 4-day, concentrated programs would encourage subsidization of travel and expenses of employee members, broadening the service to members.
4. Opportunity would be afforded for cross-fertilization of ideas and practices among those technical divisions having overlapping and related interests.
5. There would be at least one meeting a year that any member of the Society "could not afford to miss." Just one of the basic annual conferences would give a member of any of the participating technical divisions as much or more useful material as all three of the present conventions.
6. The proposed Annual Convention would give greater emphasis to professional activities, public affairs, and to honors and awards, with maximum opportunity for public relations development."

1961 ANNUAL CONVENTION IN NEW YORK

A star array of papers and speakers has been promised by the New York Convention Committee for the annual ASCE meeting to be held in New York's Sheraton-Hilton Hotel, October 16-20. The theme of the convention will be "Metropolis-1980," and many of the papers being sponsored by nearly all of the technical divisions are related to this timely overall theme.

The luncheon speakers also will cover facets of the same theme. They are: Monday, Robert C. Weaver, Administrator of the Housing and Home Finance Administration, who will speak on "Urban Affairs;" Tuesday, Samuel S. Baxter, Water Commissioner and Chief Engineer of the Philadelphia Water Department,

whose subject is "Utilities of the Future;" Wednesday, Austin J. Tobin, Executive Director, The Port of New York Authority, speaking on "Mass Transportation of People;" and Thursday, Rex Whitton, Federal Highway Administrator, who will discuss "Urban Highways of the Future."

TECHNICAL SESSIONS. The following is the latest (August 10) information on scheduled technical session in which the Hydraulics Division is directly involved.

Wednesday, October 18, 2:30 p.m. Sponsored jointly with the Waterways and Harbors Division

Co-sponsored by Committee on Coastal Engineering, Waterways and Harbors and Committee on Hydromechanics, Hydraulics Div.

Presiding: Arno T. Lenz, Secretary, Committee, Hydraulics Div.; and Thor Saville, Jr., Chairman, Committee on Coastal Engineering, Waterways and Harbors Div.; and W. Douglas Baines, Member, Committee on Hydromechanics, Hydraulics Division

2:30 p.m. A Theory of Wave Agitation in a Harbor
B. LeMEHAUTE, Dept. of Civil Eng., Queen's Univ., Kingston, Ont., Canada

3:10 p.m. Wave Induced Harbor Oscillations
FREDERICK RAICHLEN and ARTHUR IPPEN, Hydrodynamics Lab., Mass. Inst. of Technology, Cambridge

3:45 p.m. The Use of Bernoulli's Equation in Wave Theory
CHARLES L. BRETSCHNEIDER, Beach Erosion Board, U. S. Army, Washington D. C.

4:25 p.m. Diffraction of Waves by a Semi-Infinite Breakwater
R. L. WEIGEL, Inst. of Engineering Research, Univ. of California, Berkeley

Thursday, October 19, 9:00 a.m. Hydraulic Structures

Presiding: Arno T. Lenz, Secretary, Committee, and Alvin J. Peterka, Member, Committee on Hydraulic Structures

9:00 a.m. Design and Operating Problems on the Glendo Dam High Head Outlet Works and Inlet Basin

M. A. JABARA and W. E. WAGNER, Bureau of Reclamation, Denver, Colo.

- 9:40 a.m. New Approach to Design of Side Channel
Spillways
H. S. FARNEY, U. S. Army Engr. District,
Kansas City, Mo., and ADOLPHUS MARK-
US, U. S. Army Engr. Dist., Omaha, Ne-
braska
- 10:20 a.m. Prototype Experience with Energy Dissi-
pators
R. H. BERRYHILL, Asst. Chief, Eng. Div.,
U. S. Army Engr. Dist., Fort Worth, Texas

day, October 20, 9:00 a.m.

Tidal Hydraulics

Presiding: Arno T. Lenz, Secretary, Exec.
Committee, and Charles L. Bretschneider,
Member, Committee on Tidal Hydraulics

- 9:00 a.m. A Tidal Analysis of the Bay of Fundy
ARTHUR T. IPPEN, Prof., and D. R. F.
HARLEMAN, Hydrodynamics Lab., Mass.
Inst. of Technology, Cambridge
- 9:40 a.m. A Test of the Harmonic Method of Evalua-
tion of Tides in a Branching Estuary Sys-
tem
ROBERT O. REID, Texas A & M College,
College Station, Tex.
- 10:20 a.m. Corps of Engineers' Tidal Hydraulics
Activities
JOSEPH M. CALDWELL, Chief, Research
Div., Beach Erosion Board, U. S. Army,
Washington, D. C.

SESSION ON RESEARCH AT NEW YORK ASCE CONVENTION

A session on the general subject of research in civil engineering will be
sponsored by the Engineering Mechanics Division at the New York Convention.
Judging by the scope of the papers, the session should be of interest to mem-
bers of the Hydraulics Division. The program will be as follows:

Session on Research in Civil Engineering. Thursday, October 19, 1961,
p.m.

Presiding: Robert J. Hansen, Professor of Structural Engineering, Massa-
chusetts Institute of Technology.

Relationship of Research and Civil Engineering to National Goals,
by Edward Wenk, Jr., Executive Secretary, Federal Council on
Science and Technology.

The Impact of Research on Engineering, by Gordon S. Brown, Dean, School of Engineering, M.I.T., and Member, Committee Engineers Joint Council on National Goals for Engineering.

The Role of A.S.C.E. in Supporting Research, by Elmer K. T. Partner, Howard, Needles, Tammen, and Bergendoff, and Director, A.S.C.E.

Plans of the Research Committee, A.S.C.E., by Nathan M. Neimark, Head, Department of Civil Engineering, University of Illinois, and Member, Research Committee, A.S.C.E."

GENERAL NEWS

Engineers Joint Council Committee on Computation and Information Processing Systems

In January 1961, the Engineers Joint Council formed a Computation and Information Processing Systems Committee composed of representatives from the EJC member societies. The ASCE representative is Mr. F. R. Klauck, Design Division, Engineering Department, E. I. duPont de Nemours and Company, Inc., Wilmington 98, Delaware. The charter states:

"This Committee shall provide coordination of activities within the engineering societies in the fields of design and application of information processing systems or machines. To provide channels of communication between the societies for dissemination of use of new information processing systems. To provide a central source of data on information processing technology in engineering for use by member societies, other professions, and public agencies."

The formation of this committee was based on the premise that there are many fields of interest related to the use of computers common to several branches of engineering and that any joint effort could best be coordinated through the Engineers Joint Council. The committee's proposed scope of activities will include the following areas:

Intersociety cooperation

Joint Meetings

Liaison

Education

Techniques

Program Documentation and Interchange

Languages

Economics of Application

Information Storage and Retrieval Procedures

Standardization

Overall Systems Cost

Symposium on Land Erosion, Bari, Italy, October 1962

Mr. Ralph N. Wilson, Secretary for International Participation, Section Hydrology, AGU, has submitted the following announcement. Anyone interested should forward inquiries or abstracts to Dr. M. Gordon Wolman, Chairman, Committee on Erosion and Sedimentation, AGU Section of Hydrology, Isaac Bowman Department of Geography, The Johns Hopkins University, Baltimore 18, Maryland.

The Symposium on Land Erosion sponsored by the International Association of Hydrology, will be held in Bari, Italy, in October of 1962. It is hoped a number of participants from the United States will attend. The Section of Hydrology of the American Geophysical Union is encouraging workers in the field of erosion and sedimentation to present results of their investigations. The International Association has formulated four general subjects which will be the basis of the Symposium.

1. Optional subjects, particularly fluvial morphology, transport of solids, and erosion.

2. Cartographic description of effects and factors of soil erosion; use of aerial photography.

3. Description of testing instruments; artificial sprinkling—soil humidity—measurement of bed load and suspended sediment—kinetic energy of rain, etc.

4. Visit to experimental stations, and to regions most subject to erosion, particularly the Apennines and Southern Italy.

It is clear that these topics are sufficiently broad to include all aspects in the field of erosion and sedimentation.

Abstracts of not more than 250 words should be submitted to the Chairman, Committee on Erosion and Sedimentation not later than January 1, 1962. An anonymous screening committee will review the abstracts to assure material of high technical quality and authors of papers tentatively accepted will be so notified. Manuscripts of completed papers should be submitted to the Chairman by April 1, 1962. It is expected that IAH will print and have the papers available prior to the meeting."

Saline and Brackish Water Conversion Demonstrated

An open-house event was held June 16, 1961, at the farm of Gilbert O. Dalpra near Longmont, Colorado, to demonstrate experimental equipment installed by the Engineering Laboratories of the Bureau of Reclamation to convert brackish water to fresh, as part of a national research program of the Office of Saline Water of the Department of the Interior to develop low-cost methods of converting saline and brackish water to fresh. The electrodialysis demineralization process being tested at the farm is basically the same as is to be used in the demonstration plant under construction near Webster, South Dakota. The Webster plant is to be placed in operation by the Office of Saline Water in the fall of this year to convert 250,000 gallons per day of fresh water from brackish water.

Visitors at the open house saw two installations. The first unit was trailer-mounted with a "four-stack" demineralizer capable of reducing the salt content of the brackish water from 3,000 parts per million to 500 parts per million at a rate of about 18,000 gallons per day. The fresh water produced is used by Mr. Dalpra in supplying water for his household consumption and for the needs of his dairy herd. The second unit is a small single-stack house-sized device which can produce potable drinking water at a rate of 20 gallons per day. Water from this unit is used by the Dalpra family in partly supplying the family's domestic water needs.

The four-stack unit can demineralize brackish water at an estimated cost of \$.50 per thousand gallons. The smaller unit can produce fresh water at a cost of less than \$.01 per gallon. These costs are representative of small units, and it is anticipated that these costs will be reduced when larger units

are operated. Several farmers in the Dalpra farm area now haul their drinking water from Longmont at a cost of from \$3.50 to \$4.50 per thousand gallons.

A few days later, on June 21, 1961, President Kennedy officially started operation the salt water conversion demonstration plant at Freeport, Texas. This is the first to be completed of the five demonstration plants being built by the Office of Saline Water. Using the long-tube vertical multiple-effect distillation process, this plant is expected to produce water for about \$1 for each 1,000 gallons. In addition to the Freeport and Webster plants, the Office of Saline Water is constructing a demonstration plant at Point Loma, California that will use the multi-stage flash distillation process, a plant at Roswell, New Mexico, using the vapor compression distillation process, and a fifth plant on the east coast, using the direct freezing (Cornell) process.

Personnel

DR. ARTHUR T. IPPEN, F., ASCE, member of the Executive Committee of the Hydraulics Division, Professor of Hydraulics, M.I.T., is currently on an extended tour of Europe and Asia. On July 27, he gave a lecture in Germany at the faculty of the Technical University of Karlsruhe on "New Developments in Engineering Education in the United States." After attending the Ninth Congress of the I.A.H.R. in Dubrovnik (formerly Belgrade) early in September, he will travel for 2 weeks in Russia with four colleagues visiting hydraulic research installations. On the first of October, he is due to start on a lecture conference tour through Pakistan, India, Thailand, and the Philippines, returning to the states in the middle of November.

TO ASCE MEMBERS OF CHI EPSILON

Chi Epsilon Fraternity, national civil engineering honor society, has officially offered to supply the funds necessary to furnish a formal Conference Room at the United Engineering Center. This room will be on the ASCE Executive floor, will be named "The Chi Epsilon Room," and will be available for conference and committee meetings.

Pledges are not expected, but single voluntary gifts, from members and friends of the Fraternity are earnestly solicited. An attractive Commemorative Book has been planned in which donors of \$100 or more (singly or in groups) may inscribe the name of a revered person.

On request, the national chairman, Samuel Kramer (8701 Shore Road, Brooklyn 9, New York) will be glad to mail a descriptive brochure. Your gift is tax deductible if you make your check out to "ASCE CHI EPSILON ROOM FUND" and mail it to Mr. Donald D. King, ASCE, 33 West 39th Street, New York 18, N. Y. Your gift will be automatically credited to the quota of your initiating Chapter. The national goal is \$10,000.

NEW PUBLICATIONS

The following is a bibliographical listing of separate publications (as opposed to papers in technical journals) which are recommended by some members of the Division as being of value to the interests of the Hydraulics Division and which do not appear in other lists which are widely distributed to hydraulics men (for example, citation will not be made to articles or books).

unced in "Civil Engineering," in the indexes published by the U. S. Government Printing Office, or in other similar lists). Inclusion or noninclusion of citation in the list does not imply any degree of endorsement by the Hydraulics Division or your editor. Citations for inclusion in this current list were made by Dr. D. K. Todd (19) and Brian M. Reich (3). All members are urged to submit appropriate and complete recommendations for the list. Appropriate, also include the sale price of the publication. Your comments regarding this listing will be appreciated.

Anon., Contracting principles for water service contracts under the California water resources development system, Calif. Dept. of Water Resources, Sacramento, 5 pp., 1960.

Anon., Upper Tule River reconnaissance investigation, Bull. 82, Calif. Dept. of Water Resources, Sacramento, 1960.

Anon., Water quality trends, Interstate Comm. on the Potomac River Commission, Washington, D. C., 83 pp., 1961.

Beuchert, E. W., A legal view of the flood plain, Tennessee Valley Authority, Knoxville, Tenn., 81 pp., 1961.

Brewer, M. F., Economics of public water pricing, Giannini Fdn. Research Rep. 244, Univ. of California, Berkeley, 33 pp., 1961.

Brush, L. M., Jr., and L. R. Mack, Fourth decade of hydraulics at the University of Iowa, Studies in Engr. Bull. 40, Univ. of Iowa, Iowa City, 1960.

Enslyn, J. F., On the selection and delineation of suitable catchments for hydrologic research. Tech. Report No. 1, Hydrologic Research Div., Dept. of Water Affairs, P. O. Box 411, Pretoria, South Africa, 10 pp.

Faber, H. A., and L. J. Bryson (editors), Proceedings, Conference on biological aspects of water quality, U. S. Public Health Service, Washington, D. C., 244 pp., 1960.

Fink, F. W., Corrosion of metals in sea water, Research and Dev. Prog. Rep. 46, U. S. Office of Saline Water, Washington, D. C., 59 pp., 1960.

Hagan, R. M., and V. Lawton (editors), Proceedings, Conference on water resources in the critical 60's, Prog. Rep. 3, Water Resources Center, Univ. of California, Los Angeles, 161 pp., 1961.

Harris, H. S., and D. L. Fuerstein, A pilot study of physical, chemical and biological characteristics of waters and sediments of South San Francisco Bay (South of Dumbarton Bridge), Sanitary Engr. Research Lab., Univ. of California, Berkeley, 257 pp., 1961.

Howe, J. W., and R. Warnock, An analysis of the Ralston Creek hydrograph record. Bull. No. 16, Iowa Highway Research Board, Ames, Iowa, 58 pp., December, 1960.

Johnson, J. W., Deficiencies in research on gravity surface waves, Technical Report on Wave Research, Berkeley, Calif., 1961.

Judd, L., A bibliography of the reports and publications of James D. Judd, Rep. 11, Water Resources Center Archives, Univ. of California, Berkeley, 60 pp., 1961.

Koch, A. A., Saline water demineralization and nuclear energy in the California water plan, Calif. Dept. of Water Resources, Sacramento, 145 pp., 1960.

Kovda, V. A., and V. V. Egorov, The application of drainage in the reclamation of salinized soils (trans. from Russian by G. Leonov), Office of Technical Services, U. S. Dept. Commerce, Washington, D. C., 228 pp., 1960.

17. Masch, F. D., and R. L. Wiegel, Cnoidal waves tables of functions, Council on Wave Research, Berkeley, Calif., 129 pp., 1961.

18. Powell, S. T., The economic importance of the Nation's water resources—their use and misuse, School of Business Administration, American Univ., Washington, D. C., 27 pp., 1960.

19. Reich, B. M., Annotated bibliography and comments on the estimation of flood peaks from small watersheds. Civil Engineering Dept., Colorado State University, Fort Collins, Colorado, CER 60 BMR 52, 66 pp., \$2.00.

20. Robinson, T. M., and A. I. Johnson, Selected bibliography on evaporation and transpiration, Hydrologic Lab. Bibliog. 1, U. S. Geological Survey, Denver, Colo., 52 pp., 1960.

21. Schicht, R. J., and W. C. Walton, Hydrologic budgets for three small watersheds in Illinois, Rep. Invest. 40, Illinois State Water Survey, Urbana, 40 pp., 1961.

22. Smith, S. C., and M. F. Brewer, California's man-made rivers, D. Agr. Sciences, Univ. of California, Berkeley, 26 pp., 1961.

FOR YOUR CALENDAR

ASCE Meetings

October 16-20, 1961	ASCE, New York Convention
February 19-23, 1962	ASCE, Houston Convention
May 14-18, 1962	ASCE, Omaha Convention
August, 1962	Hydraulics Division Conference, Davis, California
October 8-12, 1962	ASCE, Detroit Convention
February 25-March 1, 1963	ASCE, Atlanta Convention
May 20-24, 1963	ASCE, Milwaukee Convention
Summer, 1963	Hydraulics Division Conference, University Park, Pennsylvania
October 7-11, 1963	ASCE, San Francisco Convention

Non-ASCE Meetings

October 8-12, 1961	Water Pollution Control Federation Thirty fourth annual meeting, Milwaukee, Wisconsin
October 11-20, 1961	Symposium on Groundwater Resources with Particular Reference to Arid Zones, International Association Scientific Hydrology in Collaboration with UNESCO, Athens, Greece
June 18-21, 1962	Fourth National Congress of Applied Mechanics, University of California, Berkeley, California

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Symposium on the Variation of the Regime of Existing Glaciers, International Association of Scientific Hydrology, Obergurgl (Tyrol), Austria

Symposium on Land Erosion, International Association of Scientific Hydrology, Bari, Italy

USE OF THE HYDRAULICS DIVISION NEWSLETTER

You are urged to use the Division Newsletter for announcements, inquiries, personnel news, committee reports, surveys and other items of interest to Division members. A short note summarizing the highlights of committee meetings is particularly requested. Suggestions for improvement of the Newsletter will be appreciated. All contributions are appreciated.

Deadline dates for Newsletter contributions: November 1961 issue—September 20; January 1962 issue—November 20, 1961.

Fred A. Bertle
4475 Carr Street
Wheat Ridge, Colorado

NEW ASCE TRANSACTIONS SOON TO GO TO PRESS

In mid-May all society members received a brochure describing the re-binding that the TRANSACTIONS are undergoing. Since that time thousands of orders have been received, but still more should have reached us. Beginning with Volume 126 (1961), TRANSACTIONS will be issued as a standard set of five parts, containing all Division Journal papers, according to the following schedule:

- Part I Engineering Mechanics, Hydraulics, Soil Mechanics and Foundations
- Part II Construction, Structural
- Part III Irrigation and Drainage, Power, Sanitary Engineering
- Part IV Air Transport, City Planning, Highway, Pipeline, Surveying and Mapping, Waterways and Harbors
- Part V Professional Practice

Members of ASCE can enter standing orders to any one, or more, of Parts I through IV at \$3.50 each per year; the price for Part V will be \$2.00 per year. Members can effect a considerable saving by subscribing to all five parts—the total price of \$16.00 is reduced to \$10.00.

Part V is reserved for the papers published in the Journal of Professional Practice, which is of interest to all members, regardless of their technical specialties. Part V will also contain the President's Annual Address, abstracts of the memoirs of deceased members, Final Reports of Committees, Department of Conditions of Practice, and combined subject and author indexes for Parts I through V.

The TRANSACTIONS will be mailed in December of each year and the bills will be sent out at that time.

Use the coupon below to place your order. Please do not send in a coupon if you previously mailed the original order card.

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Please enter my standing order for the New ASCE TRANSACTIONS (beginning with Vol. 126, 1961) as follows (Do not prepay):

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ASCE MANUAL NO. 42--DESIGN OF STRUCTURES TO RESIST NUCLEAR WEAPONS EFFECTS

As a project of the Committee on Structural Dynamics of the Engineering Mechanics Division, through its Manual Subcommittee this Manual (No. 42) has been in preparation for several years. It was written for use of the engineering profession in the design of structures which are intended to be resistant in some degree to all of the effects associated with the detonation of a nuclear weapon. Copies of this paper-bound Manual can be obtained by completing the accompanying coupon. The list price is \$4.00 and ASCE members are entitled to a 50% discount.

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Please send me _____ copies of Manual 42. Enclosed is my remittance of \$ _____. My ASCE membership grade is _____.

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